United States Department of Agriculture

Forest Service

July 2017

Medicine Bow
Landscape Vegetation Analysis
Scoping Document - Amended

Brush Creek/Hayden and Laramie Ranger Districts

Medicine Bow-Routt National Forests
Thunder Basin National Grassland

Albany and Carbon Counties, Wyoming

Townships 13-19N, Range 77-89W

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Comments Are Due By: **August 21, 2017**

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For more information, contact the Medicine Bow - Routt National Forests and Thunder Basin National Grassland Supervisor's Office at 2468 Jackson Street, Laramie, WY 82070, or call 307-745-2300.

Cover Photo: Mortality from the mountain pine beetle epidemic is visible on the hillsides surrounding Hog Park Reservoir, Brush Creek/Hayden Ranger District. Hog Park is a City of Cheyenne Board of Public Utilities water facility that stores water collected from the headwaters of the Little Snake River and releases it into the North Platte River (CBPU, Dena Egenhoff photo).

This Scoping Document, high resolution maps, and other project information are available on the Forest web site at www.fs.usda.gov/project/?project=51255.

AMENDMENTS/ADDITIONS
TO THE JULY 21, 2017 LAVA SCOPING DOCUMENT

Following release of the July 21, 2017 LaVA Scoping Document, the Forest Service and Cooperating Agencies identified specific information that either needed to be amended or that was inadvertently omitted from the document upon its publication. The amendments/additions are as follows:

AMENDMENTS:

- **Page 6:** The bullet that reads,

  'Constructing not more than **10 miles of new, permanent NFS roads**, and/or not more than **1,000 miles of temporary road**, as necessary, to access treatment areas; the final assessment of road needs has not been determined and could be more or less.'

  ***Has been amended to read*:**

  'Constructing not more than **10 miles of new, permanent NFS roads**, and/or not more than **600 miles of temporary road**, as necessary, to access treatment areas; no more than 100 miles of temporary road would be open at one time. The final assessment of temporary road needs has not been determined and could be more or less.'

- **Page 7:** The acres in parentheses () in the description of the Treatment Opportunity Areas do not match the figures presented in Table 1.
  - **'Mechanical TOAs (564,569 acres)'** *has been amended to read*, **'Mechanical TOAs (561,414)'**
  - **'Prescribed Fire/Hand Tool only TOAs (50,661)'** *has been amended to read*, **'Prescribed Fire/Hand Tool only TOAs (51,434 acres)'**
  - **Table 1: 'No Treatment Acres' (228,906)** *has been amended to read* **235,867** acres.

- **Page 11: Figure 3.** The full description of Figure 3 was inadvertently omitted during the formatting of the Scoping Document. The full description of Figure 3 has been amended to read as follows:
  - **Figure 3.** This forest stand is Fuel Model TL3. It has a dense overstory with high mortality, and a developing subalpine fir understory beginning to add ladder fuels to a moderate fuels load. Without treatment to reduce fuels, this stand will develop to ***Fuel Model TU5.***

ADDITIONS

- **Page 6: Proposed Action description -** A reference to Table 5 has been added to the Second bullet describing activities in Inventoried Roadless Areas. Table 5, below, has been added to the end of the Scoping Document's Map and Figure Packet (page 23).

Table 5: Treatment Opportunity Area Acres in Inventoried Roadless Areas

Total Roadless (Acres)	No Treatment (Acres)	Mechanical TOA (Acres)	Prescribed Fire / Hand Treatment TOA (Acres)	Ditch / Fence (Acres)	Total (Acres / %)
230,239	105,968	79,997	42,559	376 / 1,355	124,287 54%

Medicine Bow Landscape Vegetation Analysis

Something needs to be done in the forest. Mortality from the mountain pine beetle epidemic and other forest health concerns are visible almost everywhere on the Medicine Bow-Routt National Forests. This situation has been a topic of concern with the public, permittees and partners across all national forest resource programs, with many people expressing that the Forest Service's traditional approach to National Environmental Policy Act (NEPA) analysis and decision-making is not keeping pace with rapidly changing forest conditions. These conversations led to idea of the Medicine Bow Landscape Vegetation Analysis (LaVA). LaVA incorporates a unique planning strategy termed Condition-based NEPA, as well as the authorities of the Healthy Forests Restoration Act (HFRA), to make one decision to authorize accelerated vegetation treatments, restore forest resiliency, and improve forest conditions across the Sierra Madre and Snowy Range mountain ranges (see page 8 for more information about Condition-based NEPA).

We all have something at stake. The mountain pine beetle epidemic, other insect and diseases, changing weather conditions, and forest succession have created hundreds of thousands of acres of tree mortality in all forest types on the Brush Creek/Hayden and Laramie Ranger Districts. Natural regeneration is occurring, but the dead trees increase fuel loading, put communities at risk, and threaten other values including water collection and storage infrastructure, recreation opportunities, wildlife habitats and future timber production.

Project planning hasn't been keeping up. A different method of planning is needed to support management actions to address the challenges and opportunities presented by the changing forest. The LaVA is our best effort to apply a different approach so that projects to address forest risks can begin as soon as possible. The project is intended to take a broad approach to identify, analyze, and clear, through NEPA, large areas of National Forest System (NFS) lands where vegetation treatments are consistent with our Forest Plan and other laws, regulations and policies. Most of the other agencies and public utilities among our local, State and federal partners also have values at risk, and they are cooperating with us to develop this project and partnerships for getting the work done in the next 15 years.

What needs to be done? The LaVA would authorize vegetation projects for the next 10-15 years. So far we've narrowed down the general areas where vegetation could be treated by machinery, prescribed fire, or hand tools – and where treatment isn't allowed under the HFRA, the Forest Plan, or other regulations or policies. We are calling these Treatment Opportunity Areas (TOAs). Our resource specialists have determined that in the TOAs, there is potential right now for 95,000 acres of even-aged stand initiation, 165,000 acres of uneven-aged or intermediate treatments, and 100,000 acres of treatments for other vegetation needs. Most areas have good access, but temporary or permanent roads may need to be constructed to reach other treatment areas.

It's your turn now. It's time for public involvement – please get involved by participating in open houses and commenting on the following project proposal. Your comments will be the primary basis for modifying the proposal or developing alternatives. Specific comments that describe your support for or concerns with specific elements of the process used to develop this proposal, issues you think should be addressed by the project or in the analysis, and solutions to perceived issues are most useful at this stage of the project.

You are invited to attend an open house and get involved with LaVA!

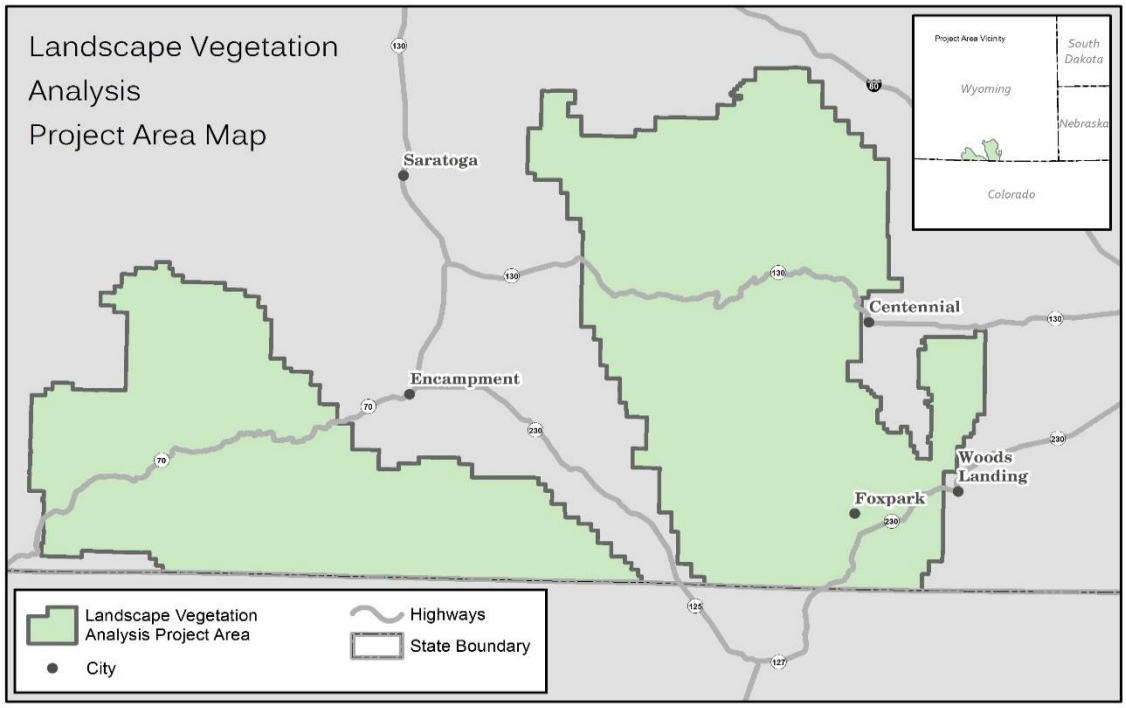
***In Laramie*: August 8, 2017: 5 pm – 8 pm, Overview Presentation at 6 pm**
Lincoln Community Center, 365 West Grand Avenue, Laramie WY
***In Saratoga*: August 10, 2017: 5 pm – 8 pm, Overview Presentation at 6 pm**
Platte Valley Community Center, 210 Elm Street, Saratoga WY

What is LaVA?

The LaVA is a plan for action that responds to unprecedented forest mortality in the management history of the Medicine Bow National Forest. The **Landscape Vegetation Analysis** is a large scale, condition-based NEPA analysis that will produce one decision to authorize vegetation management on the Sierra Madre and Snowy Range Mountain Ranges for the next 10-15 years. The LaVA is using the best available information to describe conditions and locations that would benefit from mechanical, prescribed fire, or hand treatments to reduce fuels and restore forest resiliency. Condition-based NEPA means that while the range of treatments authorized will be described and analyzed in an Environmental Impact Statement (EIS), specific treatment locations and methods will be determined during implementation rather than during NEPA planning. Surveys and prescriptions will be based on conditions observed in the field, and will provide site information in a more appropriate timeframe than we have been able to achieve in the past. Boundaries for treatment units will be based on logical natural or management features identified on the ground rather than during office mapping. Project checklists will be used to identify appropriate information needed during implementation, and District Rangers will have the responsibility to ensure that design features and resource surveys are in place before individual projects proceed. The LaVA provides adaptability and flexibility in the face of uncertainty and rapidly changing conditions.

Where is LaVA?

The Medicine Bow Landscape Vegetation Analysis project area is located in Albany and Carbon Counties, Wyoming. The project area stretches from the Colorado-Wyoming border north across the Snowy Range and Sierra Madres from approximately 25 miles west of Laramie, Wyoming to about 25 miles east of Baggs, Wyoming. It encompasses approximately 850,000 acres of NFS lands – the entirety of the Snowy Range and Sierra Madre portions of the Medicine Bow-Routt National Forests, Brush Creek/Hayden and Laramie Ranger Districts (Map 1).



Map 1. Vicinity map showing location of Medicine Bow Landscape Vegetation Analysis project area.

LaVA and the Healthy Forests Restoration Act

Special Authority

The Medicine Bow National Forest has experienced epidemic levels of mountain pine beetle and spruce bark beetle infestations since the mid to late 1990s. Although the epidemic has slowed in recent years, the infestation has left behind a changed landscape consisting primarily of regenerating forests that have an overstory of large, dead and dying trees. Action is needed to accelerate management response to this major forest health event to proactively and adaptively respond to changing forest vegetation conditions.

Intended goals of the project include, but are not limited to, using tree cutting and/or prescribed burning to: make areas more resilient to future disturbance; restore, and enhance forest ecosystem components; supply forest products to local industries; provide for human safety; reduce wildfire risk to communities, infrastructure, and municipal water supplies; and improve, protect, and restore wildlife habitat. Proposed actions in the LaVA project area are authorized under two titles of the Healthy Forests Restoration Act.

The majority of the LaVA project area is authorized for treatment under Title I of the Healthy Forests Restoration Act of 2003 (HFRA) as a result of one or more of the following conditions:

- Sec. 102(a)(1) – Federal land in wildland-urban interface areas;
- Sec. 102(a)(2) – Condition class 3 Federal land in proximity to municipal watersheds;
- Sec. 102(a)(3) – Condition class 2 Federal land, in fire regimes I, II, or III, in proximity to municipal watersheds;
- Sec. 102(a)(4) – Insects and disease epidemics; and
- Sec. 102(a)(5) – Federal land not covered by 1 – 4 containing threatened and endangered species habitat.

The LaVA Project area is also authorized under Title VI of the HFRA, Section 602(d) (as amended by Section 8204 of the Agricultural Act of 2014). Section 602(d) allows for designation of priority treatment areas that reduce the risk or extent of, or increase the resilience to, insect or disease infestation (See Map 2):

  - The northwest portion of the Sierra Madre mountains was designated a priority project area in May 20, 2014 under the initial State of Wyoming request for insect and disease treatment areas.
  - The remaining Medicine Bow National Forest was designated as a landscape-scale insect and disease area on March 22, 2017 by Forest Service Chief Thomas L. Tidwell.

These authorities provide for expedited environmental analysis and treatments to address areas affected by insect and disease infestations. Because the LaVA project area meets the definition and criteria for a HFRA project, procedures provided by Section 104 of the HFRA will be used to complete project planning. Section 104 allows for a narrower range of alternatives, a more restricted project scope (i.e., authorized hazardous fuels reduction projects), and expedited objection processes (i.e. Subparts A and C of 36 C.F.R. Part 218 – Project-level Pre-decisional Administrative Review Process (hereinafter referred to as 'objection')).

Why LaVA?

Purpose and Need

The purpose of the LaVA Project is to respond to changed forest vegetation conditions presented by the bark beetle epidemics experienced on the MBNF. The need for the project is defined by existing and predicted trends in vegetation conditions and the threats to forest values they pose. The approach is to actively manage forest vegetation using tree cutting, prescribed burning, or hand treatments, consistent with the goals outlined in the Governor's Task Force on Forests (Final Report, 2015), Western Bark Beetle Strategy (July 2011), Wyoming Statewide Forest Resource Strategy (2010), the Healthy Forests Restoration Act and Farm Bill Amendment (2003 and 2014), and Medicine Bow Forest Plan (2003). Goals include promoting recovery from the insect infestations, improving the resiliency of green stands to future disturbances, helping protect forested areas on adjacent private and state land, and providing for human safety. General goals will be adapted during implementation to fit conditions at the local project scale where treatments are needed based on Forest Plan direction, foreseeable conditions, and local environmental, social and economic concerns.

The project **purposes** are in bold below, followed by bulleted statements describing the project **needs**:

Enhance Forest and Rangeland Resiliency to Future Insect and Disease Infestations:

- Increase age class, structural, and vegetative diversity across the landscape;
- Promote forest and rangeland conditions to improve forage and wildlife habitat; and
- Actively accelerate recovery and regeneration of forest ecosystems.

Provide for Recovery of Forest Products:

- Promote vegetation management to recover merchantable products; and
- Provide commercial forest products to local industries at a level commensurate with Forest Plan direction and goals.

Provide for Human Safety:

- Treat hazard trees in areas not covered by the Forest-wide Hazard Tree Decision Notice (August 12, 2008);
- Treat hazard trees within and outside the wildland urban interface (WUI);
- Increase the extent of defensible space around resources at risk; and
- Create fuel breaks to slow or stop the progress of wildfires.

Provide for Protection of Infrastructure, Municipal Water Supplies, and Threatened and Endangered Species Habitat:

- Treat vegetation adjacent to infrastructure and non-federally owned lands;
- Treat vegetation to protect municipal water supplies and infrastructure; and
- Treat vegetation where fire is identified as a threat to the habitat of a threatened or endangered species.

Mitigate Hazardous Fuel Loading:

- Treat hazardous fuels to minimize the potential for large, high intensity/high severity wildfires; and
- Treat hazardous fuels to reduce fire behavior and the possibility of fires spreading onto adjacent, non-federal lands.

What is the scope of the LaVA Project?

The scope of the LaVA project and EIS will include:

- All NFS lands in the Sierra Madre and Snowy Range Mountain Ranges;
- Vegetation treatments focused on reducing fuels and restoring forest resiliency through timber, silviculture, fuels and other vegetation treatments;
- Coarse-scale Treatment Opportunity Areas that describe where mechanical, prescribed fire, and hand treatment of all vegetation cover types is consistent with law, regulation and policy;
- No treatments are proposed in Wilderness areas consistent with limitations in HFRA authorities;
- No treatments are proposed in mapped and inventoried old growth stands (2008) in Management Area 5.15 (Ecological Restoration) consistent with Forest Plan direction;
- Only treatment methods consistent with land management plans, policies and allocation objectives for Special Interest Areas, Research Natural Areas, Inventoried Roadless Areas, and areas Recommended for Wilderness under the Forest Plan;
- Mid-level filters to identify at the geographic sub-unit/Accounting Unit scale the extent, intensity and type of vegetation treatments that could be authorized consistent with the Forest Plan;
- Fine-scale considerations including design features, project checklists, and other best management practices to guide access, layout and implementation; and
- Tools for collaboration, partnerships, project scheduling, and public involvement during implementation.

How much would LaVA treat?

Proposed Action

The Forest Service proposes to conduct vegetation management activities on NFS lands, including inventoried roadless areas, within the Sierra Madre and Snowy Range Mountain Ranges of the Medicine Bow National Forest. The Notice of Intent for the LaVA EIS described that vegetation management activities, including prescribed fire, mechanical, and hand treatment methods, could be applied to 150,000 – 350,000 acres within the designated Treatment Opportunity Areas (615,230 acres, see Map 3) to protect, restore and enhance forest ecosystem components; reduce wildfire risk to communities and municipal water supplies; supply forest products to local industries; and improve, protect, and restore wildlife habitat.

This Scoping Document provides additional specificity in the amount, timing and types of proposed activities:

- Stand initiating or even-aged treatment methods would not exceed **95,000 acres**.
- Uneven-aged or intermediate treatments would not exceed **165,000 acres**.
- Other vegetation treatments including prescribed fire, mastication, hand thinning would not exceed **100,000 acres**.
- Cutting trees or shrubs using a variety of treatment methods including, but not limited to, clearcutting/coppice; group and individual tree selection; salvage; mastication; sanitation; and thinning.
- Cutting trees that have encroached on grass and shrub lands to maintain desired species dominance and improve wildlife habitat.

Proposed Action, continued:

- Prescribed burning areas using jackpot, pile burning, and broadcast burning. Maintenance burns on previously treated areas would occur to maintain desired fuels or habitat conditions.
- Prescribed burning or tree/shrub cutting on portions of inventoried roadless areas (IRAs) (see Map 5 and Table 5 for more information). The TOAs in IRAs were proposed by Cooperating Agencies and the Forest Service to protect communities at risk; threatened, endangered, and sensitive wildlife habitat; critical infrastructure including fences and ditches; and municipal water supplies.
- No new permanent or temporary road construction would occur in IRAs.
- Tree clearing and/or removal along critical linear structure including fences, ditches, and utilities;
- Utilizing and/or reconstructing existing open and closed NFS roads to access treatment units. Reconstruction may include road blading, culvert installation or replacement, and gravelling. Closed NFS roads would be for administrative access only (i.e., they will be managed as closed to the public) and would be returned to a closed status with the method of closure being determined at implementation.
- Constructing not more than **10 miles of new, permanent NFS roads**, and/or not more than **600 miles of temporary road**, as necessary, to access treatment areas; **no more than 100 miles of temporary road would be open at any given time**. The final assessment of temporary road needs has not been determined and could be more or less.
- All newly constructed system roads would be physically closed to public motorized vehicle use following completion of treatment activities; however, their templates may be retained for future management entries based on site-specific access needs.
- While open, temporary roads would be for administrative use only (i.e., they would be managed as closed to the public). Temporary roads would be decommissioned following treatment activities to preclude future motorized use and to restore ecological function; decommissioning returns a road to a natural state.
- Methods for temporary or system road decommissioning may include, but are not limited to, re-contouring the road, ripping/scarifying the roadbed, removing culverts, installing drainage features, creating physical barriers to preclude motorized travel, scattering wood/rock debris onto the road, applying seed and mulch to the area, and posting signs.
- Developing checklists, standards, protocols, and monitoring requirements in the environmental impact statement to guide project implementation, including:
    - Complete all required surveys for each individual treatment area; complete required layout and marking of each treatment area; determine appropriate design features to be applied; and document compliance with requirements of the environmental impact statement using a set of pre-established field checklists.
    - Perform monitoring during and following implementation of individual treatment activities to ensure treatments are implemented as planned and that project objectives are met.
    - Establish an annual monitoring review with interested stakeholders, partners, and collaborative groups to ensure treatments are implemented as planned and that project objectives are being attained.
- Using a combination of commercial timber sales, service contracts, stewardship contracts, cooperative authorities, partner capacity, and Forest Service crews to implement the project.
- Conducting regeneration surveys, noxious weed control, native grass seeding, and road maintenance associated with implementing vegetation treatments.
- Treatments would be authorized for a 10-year period beginning in 2018 and would be completed within approximately 15 years of the project decision.

Where would vegetation treatments happen?

Treatments would be implemented only in Treatment Opportunity Areas (TOAs) identified by Forest Service resource specialists and cooperating agencies through this analysis. TOAs are areas wherein treatment activities could be proposed during LaVA project implementation; they were established by applying coarse filters, such as applicable laws, regulations, policies, and Forest Plan direction. TOAs were developed to narrow the scope of the analysis by identifying known legal constraints. The LaVA analysis includes two types of TOAs: Mechanical and Prescribed Fire/Hand Tool (Table 1, Map 3).

Mechanical TOAs (561,414 acres): Authorized activities may include timber harvest, prescribed fire, hand tools, and mastication. Mechanical TOAs exclude NFS lands inside the following Forest Plan Management Areas (MAs): Wilderness, Semi-primitive (MA 1.13); Recommended for Wilderness (MA 1.2); Special Interest Areas (MA 2.1); Research Natural Areas (MA 2.2); and mapped and inventoried old growth in MA 5.15 – Ecological Restoration. They also exclude portions of Inventoried Roadless Areas (IRAs) where treatment justifications were not provided by cooperating agencies and Forest Service staff. All other NFS lands are considered Mechanical TOAs.

Prescribed Fire/Hand Tool Only TOAs (51,434 acres): Authorized activities may include prescribed fire and hand tools only. These areas exclude NFS lands inside the following Forest Plan MAs: MA 1.13 (Wilderness, Semi-primitive) and areas identified as mapped and inventoried old growth in MA 5.15 – Ecological Restoration. They also exclude portions of IRAs where treatment justifications were not provided by cooperating agencies and Forest Service staff. All other NFS lands are considered Prescribed Fire/Hand Tool TOAs. Note that prescribed fire and hand tool use would also be allowed in Mechanical TOAs, but mechanical treatments would not be allowed in Prescribed Fire/Hand Tool Only TOAs.

Table 1: Summary of Mechanical and Prescribed Fire/Hand Tool Treatment Opportunity Areas for LaVA.

Analysis Area Acres	Mechanical TOA Acres	Prescribed Fire/ Hand Tool Only TOA Acres	Total TOA Acres	No Treatment Acres	IRA TOA Acres*
844,136	561,414	51,434	612,838	235,867	124,287

*Inventoried Roadless Area acres are included in the "Total TOA Acres" figure.

Site-specificity will be further refined at the Accounting Unit level. The Accounting Units are a way of subdividing the LaVA Project Area into sub-units to facilitate effects analysis, decision making, and project implementation. Each of the 14 Accounting Units incorporate a lynx analysis unit (if applicable) and a contiguous group of 7th level watersheds. The Accounting Units will be used to increase site-specificity, demonstrate Forest Plan consistency and NEPA compliance. For an example of the Accounting Unit concept, see Figure 10 in the Map Packet.

What's different about NEPA for the LaVA Project?

Fewer Possible Alternatives

The Healthy Forests Restoration Act limits the number of alternatives to the proposed action that must be analyzed. At a minimum, the environmental impact statement will disclose the effects of the Proposed Action and a No Action alternative. The No Action alternative represents no change from current conditions and serves as the baseline for the comparison among alternatives. An alternative to the Proposed Action may be considered if it is developed during the collaborative process or suggested during public comments.

Condition-Based NEPA for Implementation Using Adaptive Management

The Proposed Action incorporates the principles of adaptive management in that it does not identify specific treatment units. Instead, a range of acres is defined (150,000 – 350,000) that could be treated within the pre-established TOAs (612,838 acres). Treatment types would be up to 95,000 acres of even-aged prescriptions, 165,000 acres of uneven-aged or intermediate prescriptions, and 100,000 acres of other methods. During project implementation, the Forest Service would cooperate with other agencies, local governments, interested stakeholders, and organizations to identify specific treatment units at the Accounting Unit scale based on vegetation conditions at that time. Specific objectives and design would be determined for projects prior to any ground-disturbing activities using a series of activity-specific field checklists developed as part of this environmental impact statement. Total activity amounts would not exceed the proposed action acreages.

Figure 1: Lodgepole pine regenerating in a past treatment area.

About the LaVA Project Area

The Medicine Bow National Forest 2003 Revised Land and Resource Management Plan (Forest Plan[1]) guides natural resource management and provides an overall strategy for managing the Medicine Bow National Forest. Direction for management is provided at the forest-wide, geographic area, and management area levels, and is implemented with the most site-specific (management area) direction superseding the more general direction.

Forest-wide Standards and Guidelines relevant to this project are found on Forest Plan pages 1–25 through 1–64. The LaVA analysis area includes 20 **Geographic Areas;** direction at this scale relevant to this project is found on Forest Plan pages 3–1 through 3-95. **Management Area** direction relevant to this project is found on Forest Plan pages 2-1 through 2-80 (see Table 2 and Map 4). To the best of the knowledge of the Forest Service interdisciplinary team, the proposal is in compliance with all Forest Plan direction.

[1] USDA Forest Service. 2003. Medicine Bow National Forest Revised Land and Resource Management Plan, Chapters 1, 2, and 3. USDA Forest Service, Rocky Mountain Region. Lakewood, CO. Available at http://www.fs.usda.gov/detail/mbr/landmanagement/planning/?cid=fsbdev3_025109.

Table 2. Management Areas and management themes within the LaVA Project Area.

Management Areas and Themes	Acres	Mechanical TOA	Prescribed Fire/Hand Tool TOA	No Treatment
1.13 Wilderness	78,910	0	0	78,910
1.2 Recommended Wilderness	27,974	0	12,307	15,667
1.31 Backcountry Recreation Year-round Nonmotorized	27,524	9,309	2,972	15,243
1.33 Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	38,541	4,348	6,551	27,642
2.1 Special Interest Areas	16,619	0	10,633	5,986
2.2 Research Natural Areas	2,410	0	1,650	760
3.31 Backcountry Recreation, Year-round Motorized	55,024	31,023	6,164	17,837
3.33 Backcountry Recreation, Summer Motorized with Winter Nonmotorized	3,828	3,821	0	7
3.4 National River System	1,285	904	87	294
3.5 Forested Flora or Fauna Habits, Limited Snowmobiling	30,600	19,830	6,518	4,252
3.54 Special Wildlife Areas (Sheep Mountain)	16,990	16,890	0	10
3.56 Aspen Maintenance and Enhancement	30,280	25,863	68	4,349
3.58 Crucial Deer and Elk Winter Range	54,392	51,058	1,568	1,766
4.2 Scenery	14,864	14,538	42	284
4.3 Dispersed Recreation	2,073	2,073	0	0
5.12 General Forest and Rangeland, Rangeland Vegetation Emphasis	18,671	18,223	0	448
5.13 Forest Products	132,047	129,707	359	1,981
5.15 Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	281,838	222,558	1,832	57,448
5.41 Deer and Elk Winter Range	8,650	6,139	625	1,886
8.21 Developed Recreation	3,879	3,010	38	831
8.22 Ski-based Resources, Existing and Potential	1,364	1,364	0	0
8.6 Administrative Sites	952	746	20	186
NFS Land Sub-Total	**848,717**	**561,404**	**51,434**	**235,767**
State, Private, Non-Forest Service	**45,970**	**0**	**0**	**0**
TOTAL	**894,685**	**561,414**	**51,434**	**235,867**

Existing Conditions in the LaVA Project Area

Forest Health and Habitats:

The mountain pine beetle, spruce bark beetle, and other tree pathogens have dramatically changed the character of the forest and forested habitats in the last 15 years. Aerial survey data from 2016 show that roughly 89 percent of forested acres on the Snowy Range (369,260 of 412,721 acres) and 79 percent of forested acres on the Sierra Madre (190,522 of 240,139 acres) have been impacted by the beetle infestation. At the onset of the bark beetle epidemic, predictions were that 100% of lodgepole pine over 6 inches in diameter might be killed. However, field monitoring has shown that tree mortality has varied considerably. Depending on species and location, insects and disease have caused tree mortality in 54% and 50% of the forested acres in the Snowy Range and Sierra Madre Range, respectively. Individual tree mortality varied by tree species and size, resulting in variable stand conditions and varied impacts to forested wildlife habitats (Table 3). Forest stands are considered to have undergone "stand initiation" where overstory tree mortality within a stand was high (≥60%).

Table 3. Percent tree mortality within a stand based on 2014 – 2016 field verifications.

Tree Species	Tree Size				
	Establishing	Small	Medium	Large	Very Large
Lodgepole	0	9	49	88	92
Subalpine fir	0	5	14	14	16
Englemann spruce	0	7	12	35	42
Aspen[2]	0	24	29	14	9

[2] Mortality of some small and medium aspen due to herbivory.

Generally, there is a large increase in understory production by existing grasses, forbs, and shrubs but little change in understory plant diversity where pine beetles have killed a large portion of lodgepole within a stand (Stone and Wolfe 1996). In contrast, the species composition of the regenerating tree species may shift substantially following bark beetle mortality. In many cases this may create new habitat in mixed conifer stands; however, in timber production areas or where forest fuels are a concern, the regrowth of fast-growing subalpine fir beneath a dead overstory creates concern for the future stand composition and structure. Subalpine fir is not considered desirable in timber production stands and influences the fuels hazard (discussion below in Fire and Fuels).

Fire and Fuels: The condition of fuels in the forest is one of the primary drivers of the LaVA Project. Mortality following the mountain pine beetle epidemic makes most stands in the project area ripe for uncharacteristic wildfires of high intensity and high severity. To make a difference in restoring forest health, we are examining wildfire risk across the Sierra Madre and Snowy Ranges so that we can plan appropriate restoration treatments to mitigate that risk, thereby benefiting the national forest and adjacent lands in other ownerships.

Wildfire response is not included in the decision to be made for the LaVA Project. The Forest Plan and Fire Management Plan contain identical direction that allows fire to be managed utilizing the full spectrum of response everywhere on the landscape. Values at risk, firefighter safety, weather and fuel conditions, and the national fire preparedness level are considered to determine response to a fire incident.

Figure 2: Keystone Fire at Rob Roy Reservoir, July 2017.

Figure 3: This forest stand is Fuel Model TL3. It has a dense overstory with high mortality, and a developing subalpine fir understory beginning to add ladder fuels to a moderate fuels load. Without treatment to reduce fuels, this stand will develop to Fuel Model TU5.

An important consideration for LaVA is to identify where existing fuels can be managed to reduce threats to communities, firefighters, and other values. In general, fuel continuity in the lodgepole pine and spruce-fir cover types is very high. Fuel types are characterized by a system of "fuel models" that generate a combined rating for overstory and understory vegetation types and flammability. Fuel models of concern are Timber-Understory 5 (TU5, Very High Load Dry Climate Timber-Shrub), Timber-Litter (TL3, Moderate Load Conifer Litter), and Timber-Understory 1 (TU1, Low Load Timber-Grass-Shrub Dynamic)).

Table 4 on the following page includes information on how much of Fuel Models TL3 and TU5 there are in WUI and Communities at Risk covered by Community Wildfire Protection Plans. Between these two high hazard fuel types, there are over 100,000 acres in communities at risk.

Figure 4: This forest stand is "Fuel Model TU5," because of the very high fuels load and dry climate in this timber-shrub community. In addition to a dense overstory with high percent of mortality, the subalpine fir understory has more fully developed to link heavy fuels on the ground and in the overstory.

In addition to hazardous horizontal fuel loads, most of the forested acres also contain heavy vertical fuel ladders. These fuel ladders can cause surface fires to quickly become crown fires, thereby increasing threats to property and firefighter safety. Although this stand provides other value as habitat and carbon storage, where it occurs near other values at risk it is a threat to those values. The degree to which these stand types contribute to risk in a variety of values is discussed in the Fire and Fuels, Communities at Risk, Water Supply, and Forest Infrastructure sections.

Wildland-Urban Interface:
Wildland-urban interface (WUI) areas were identified under the National Fire Plan (USDA/USDI 2000) as having the highest priority for reducing forested areas prone to fire. Under the National Fire Plan and the Medicine Bow National Forest 2003 Revised Land and Resource Management Plan (Forest Plan), the Forest Service is directed to work cooperatively with private and county officials on thinning, planned burns, and forest restoration projects within these interface areas.

Figure 5: The community of Foxpark, Wyoming.

The most recent Community Wildfire Protection Plan (CWPPs) for Carbon County (September 30, 2016) identifies 47 communities, many of which fall within the analysis area boundary, as being "at-risk" from wildfire. Similarly, Albany County's CWPP (February 2004) identifies 45 communities, many of which also fall within the analysis area boundary, as being "at-risk" for wildfire. Accordingly, WUI Mitigation Strategies outlined in the CWPPs will be incorporated into project planning.

Table 4. Acres of hazardous fuel types TL3 and TU5 in Albany and Carbon County Communities at Risk.

Fuel Model	Acres	Percentage Of LaVA Area	Fuel Model Acreage Within Albany CAR's	Fuel Model Acreage Within Carbon CAR's	Total Fuel Model Acreage Within Carbon/Albany CAR's
TU5	196,164	21.92%	2724	36893	39617
TL3	346,893	38.76%	12509	52262	64771
TU1	148,950	16.64%	2319	29036	31355

Water Resources:
There are a variety of surface and ground water resources across the Medicine Bow Landscape Vegetation Analysis (LaVA) Project area. Surface water originating in the project area contributes to flow in both the Platte and Green River basins. There are approximately 1,600 miles of perennial stream channel within the project area, including the North Platte, Encampment and Little Snake Rivers. Rob Roy (640 acres) and Hog Park (520 acres) are the largest two reservoirs within the project area; there are also hundreds of smaller lakes, reservoirs, and ponds. Most of the project area is located within the Western Ranges ground water region as described by Heath (1984). The majority of the project area, portions over 7500 feet elevation, is underlain by Precambrian aquifers. Lower elevation portions of the project area are underlain by Pennsylvanian/Cambrian and Terrace Alluvium aquifers (Marston, et al. 1990). Precambrian rocks are not a major aquifer; therefore groundwater storage across most of the project area is localized and limited.

The existing conditions of water resources in the project area can be broadly characterized in terms of both water quality and watershed conditions. Most surface waters in the project area are believed to be meeting all designated water quality uses, but due to the sampling requirements only a small subset of the waters have comprehensive data to support this conclusion (USDA Forest Service 2014). Bear, Haggerty and West Fork Battle Creeks have been identified with impaired water quality (WYDEQ 2016). The Forest classified watersheds following the Watershed Condition Framework (WCF). WCF is the first "nationally consistent reconnaissance-level approach for classifying watershed condition, using a comprehensive set of 12 indicators that are surrogate variables representing the underlying ecological, hydrological, and geomorphic functions and processes that affect watershed condition." (USDA Forest Service, 2011a; USDA Forest Service, 2011b).

Overall watershed conditions for the majority of watersheds in the project area have been changed from their natural potential condition in terms of physical, biotic and/or chemical conditions to a moderate degree with 93% of the watershed area rated as Functioning At Risk (Class II). The remaining 7% of the watershed area was rated as Functioning (Class I). No watersheds were rated with Impaired Function (Class III). Individual category indicators of watershed condition provide additional insight into watershed conditions. For example road and trail conditions for the project area found watersheds with 72% "Fair"; 25% "Poor" and 3% "Good" ratings.

Surface and ground water resources from the project area are used on and off the Forest, both for consumptive and non-consumptive uses. Non-consumptive uses of water include recreation, wildlife, fisheries, channel maintenance, and the aesthetic and spiritual quality of this resource. Consumptive water uses meet Forest Service administrative needs (e.g. campgrounds, firefighting, administrative sites), permitted activities on Forest (e.g. stock watering facilities, snowmaking at ski areas, summer home wells) and activities off-Forest (e.g. irrigation, municipal water supplies) with permitted water diversion, transmission and storage facilities on Forest.

Figure 6: Rob Roy Reservoir, Cheyenne Board of Public Utilities.

Municipal Water Supplies: Rob Roy Reservoir, Lake Owen, and Hog Park Reservoir are on-forest waterbodies that provide water for the City of Cheyenne's public water supply. The entire water collection, treatment, and distribution system for these water sources is operated by the Cheyenne Board of Public Utilities (CBPU). Runoff from the analysis area also contributes to the drinking water supply for the residents of small rural communities including Albany, Baggs, Centennial, Dixon, Elk Mountain, Encampment, Jelm, Laramie, Medicine Bow, Riverside, Rock River, Ryan Park and Savery. Three communities (Centennial, Elk Mountain, and Saratoga) adjacent to the Forest augment their surface water supplies with groundwater for part or all of their municipal water supplies.

Watershed Function and Long Term Stream Health: These factors harken back to the original mission of the Forest Service to ensure favorable conditions of flow from forested watersheds. Watershed ratings from the Forest Service's Watershed Condition Framework, Forest Service research in watersheds on this and neighboring forests, and a watershed risk assessment conducted on behalf of the Cheyenne Board of Public Utilities will also be used as mid-scale filters to help determine where activities to improve forest resiliency should be balanced with considering cumulative watershed effects.

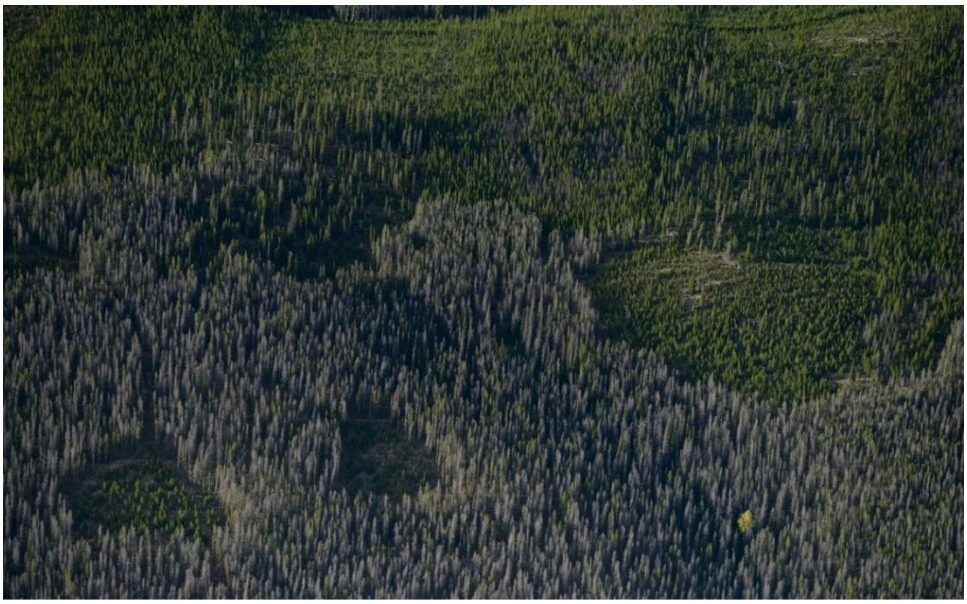


Figure 7: Forest mosaic showing mortality in mature trees surrounding past treatment areas with live green young trees.

Habitat for Wildlife Including Canada Lynx:
In stands of mature lodgepole pine, wildlife habitat conditions have changed considerably. The vast majority of trees have died and little live overstory canopy remains. Habitat quality for most forest species has declined greatly in these stands. In mixed conifer stands containing large lodgepole trees, there has been an increased density of large snags and large coarse woody debris within the live stand. This is not a common characteristic for stands across the Forest, and could provide some unique habitat opportunities for cavity-nesting birds, and denning habitats for many small mammals and several furbearing wildlife.

Figure 8: Forest stands are evaluated to determine whether their condition is suitable or unsuitable as lynx habitat.

Canada lynx is listed as threatened under the Endangered Species Act of 1973, as amended (USFWS 2000). Although the forest is not considered 'critical habitat', as designated by the U.S. Fish and Wildlife Service (USFWS 2009), it is considered 'occupied lynx habitat' based on documented lynx observations and breeding attempts in the area.

Standards and guidelines from the Southern Rockies Lynx Amendment (USFS 2008) are one of the mid-scale filters that will be used to determine how much forest restoration work can be done in each of the Accounting Units. This topic will be covered thoroughly in the upcoming DEIS.

How can you get involved with LaVA?

Attend an Open House

Two open houses are planned during the comment period for LaVA. The open houses are scheduled in Laramie, on August 8, and in Saratoga on August 10, 2017. ***Both open houses will run from 5 to 8 pm, with an overview presentation on the project at 6 pm.***

August 8, 2017: Lincoln Community Center, 365 West Grand Avenue, Laramie WY

August 10, 2017: Platte Valley Community Center, 210 Elm Street, Saratoga WY

During these events, there will be an overview of the LaVA Project from the perspective of the Forest Service and the Cooperating Agencies. Learn how the proposed action was developed, and then visit with resource specialists around the room on topics including Treatment Opportunity Areas, Wildland Urban Interface and Community Wildfire Protection Plans, Fire & Fuels, Municipal Water Supplies, Inventoried Roadless Areas, Timber Production, Wildlife. Please contact the Forest Service if you need accommodation to attend these sessions.

Comment on the LaVA Proposed Action by August 21, 2017

This is your opportunity to comment on the proposed action for LaVA. This Scoping Document is intended to disclose adequate information to allow the public to provide substantive comments on the proposed vegetation treatments that would be authorized by the Medicine Bow Landscape Vegetation Analysis.

A 30-day public comment period will start when the Notice of Intent to prepare an Environmental Impact Statement for LaVA is published in the Federal Register, on or around July 21, 2017. This will be the first of two opportunities to give input on the project. The public will also have an opportunity to comment on the Draft Environmental Impact Statement, expected to be completed in November 2017. Those who provide timely and specific comments during either comment period may also be eligible to file an objection to the Final Environmental Impact Statement and Draft Notice of Decision, expected to be available in May 2018.

Comments can be submitted by mail, fax, over the phone, in person, or by email. For objection eligibility, each individual or representative from each entity submitting timely and specific written comments must either sign the comments or verify identity upon request.

There are a number of ways to comment:

- Written comments should be submitted to the Medicine Bow-Routt National Forests, Attn: Melissa Martin, 2468 Jackson St, Laramie, WY 82070, or fax: 307-745-2398.
- Oral and hand-delivered comments should be submitted to 2468 Jackson Street during normal business hours (8:00 am to 4:30 pm, Monday through Friday, excluding holidays).
- Telephone comments can be submitted to the Responsible Official at 307-745-2300.
- Email comments may be submitted to comments-rocky-mountain-medicine-bow@fs.fed.us (portable document format (.pdf) or Word (.docx) format).
- Comments may be submitted via an electronic form located at https://cara.ecosystem-management.org/Public/CommentInput?Project=51255 .

Comments, names, and contact information of those who comment will be part of the public record for this proposed action. Comments submitted anonymously will be accepted and considered; however, the District will not be able to send subsequent environmental documents to anonymous commenters.

Make Your Comments Count

Commenting is a process that allows individuals, organizations, agencies, and businesses to provide input on proposed environmental decisions. Public comments can strengthen an environmental decision by providing the Forest Service with facts or perspectives that were lacking in the original proposed action. The most useful comments suggest specific changes or additions to the proposed action or the analysis process:

- Let us know if you find any potential issues with the information we provide or the process we have used to produce the proposed action.
- State what you support as well as what you disagree with.
- Organize your comments so that they are clear, concise, and easy to follow, and please be respectful. The LaVA Project Team wants to fully understand your comments and suggestions.
- Use specific examples to illustrate your concerns, and offer solutions where possible.

Specific comments might address:

- Do you think that something needs to be done about forest conditions in the Snowy Range and Sierra Madres?
- How do existing forest conditions influence your ability to use the national forest?
- What changes in forest condition are needed? What methods should be used to achieve them?
- Do you feel a sense of urgency for management actions to address forest conditions?
- Do you think that the traditional approach to NEPA or a different approach to NEPA is useful?
- What kind of information would help explain how a condition-based NEPA decision would be implemented on the ground?
- Do you support the method used to identify Treatment Opportunity Areas?
- Do you support the use of mid-filters screen such as lynx habitat conservation or watershed stability ratings to help define the amount, intensity and type of treatments?
- Are there other things that should be considered as mid-filters to help focus where and how much treatment would occur during implementation?
- Are there other things that should be considered in defining design features for use at the implementation stage?
- Are there locations that you think should be treated differently as the proposed action is refined, analyzed or implemented? Where are they and why should the action be changed?

Stay Tuned for the Draft Environmental Impact Statement

The Forest Service expects to analyze and disclose the effects of the Proposed Action and possible alternative management actions in an Environmental Impact Statement. The LaVA proposed action, resource effects, implementation tools, and consistency with the Forest Plan and other laws, regulations and policies will be documented in the Environmental Impact Statement. The Draft Environmental Impact Statement is scheduled to be available in November 2017. The Final Environmental Impact Statement and Draft Record of Decision are scheduled to be available in May 2018.

The Forest Supervisor is the responsible official for the project. Once the NEPA analysis is completed, the Forest Supervisor will decide: whether or not to implement, in part or in full, the proposed actions or other alternatives; rationale for the decision; and design criteria, mitigation and monitoring requirements necessary for project implementation. Project implementation will be the responsibility of the local District Rangers.

For More Information

For more information concerning the proposal, or to receive a hard copy of the Scoping Document, please contact: Melissa Martin, Project Team Leader, at (307) 745-2371, or mmmarting@fs.fed.us
Paula Guenther, Environmental Coordinator, at (307) 326-2507 or pguenther@fs.fed.us

This Scoping Document, maps, and other project information are available on the Forest web site at www.fs.usda.gov/project/?project=51255.

You are invited to attend an open house and get involved with LaVA!

***In Laramie*: August 8, 2017: 5 pm – 8 pm, Overview Presentation at 6 pm**
Lincoln Community Center, 365 West Grand Avenue, Laramie WY

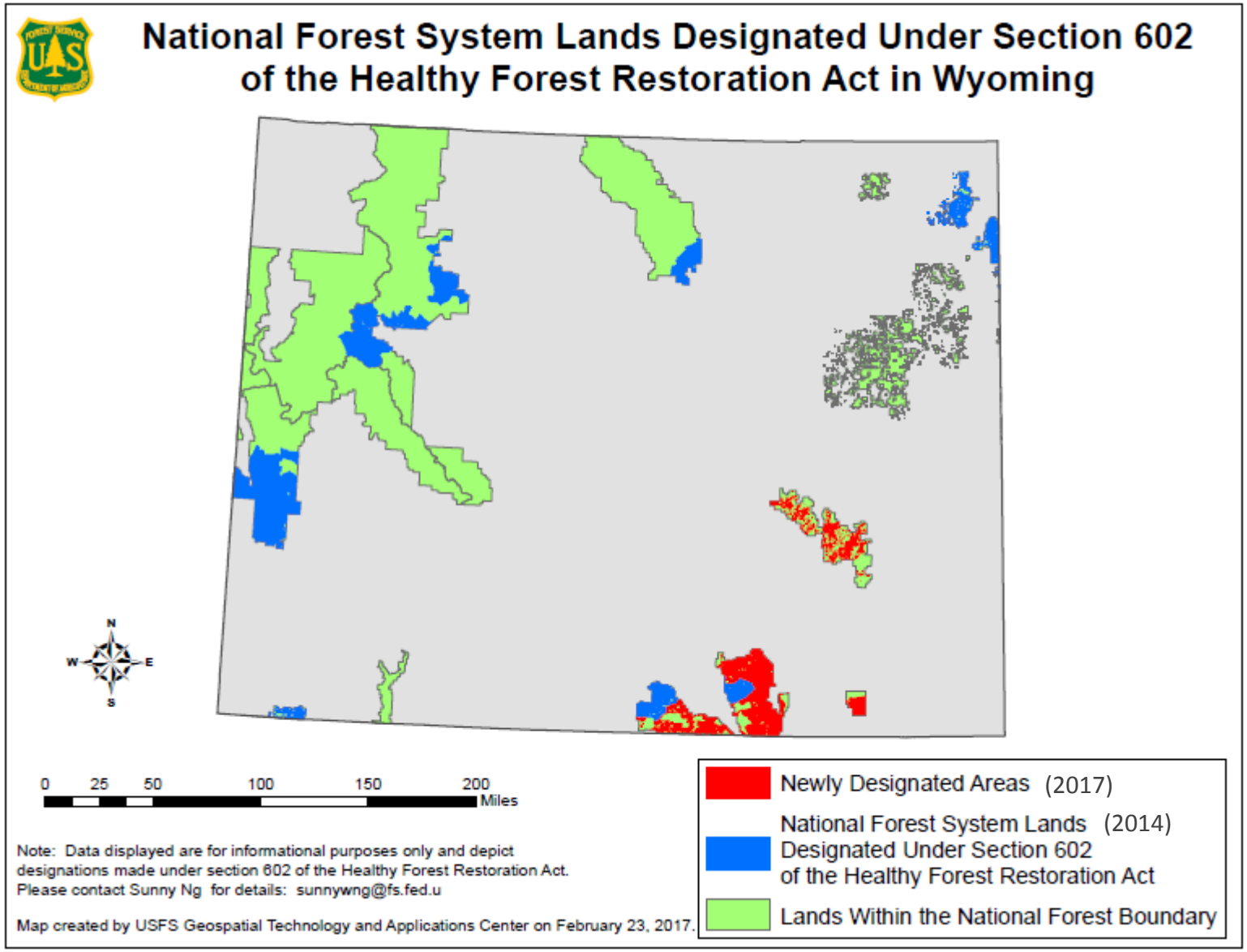
***In Saratoga*: August 10, 2017: 5 pm – 8 pm, Overview Presentation at 6 pm**
Platte Valley Community Center, 210 Elm Street, Saratoga WY

Medicine Bow Landscape Vegetation Analysis

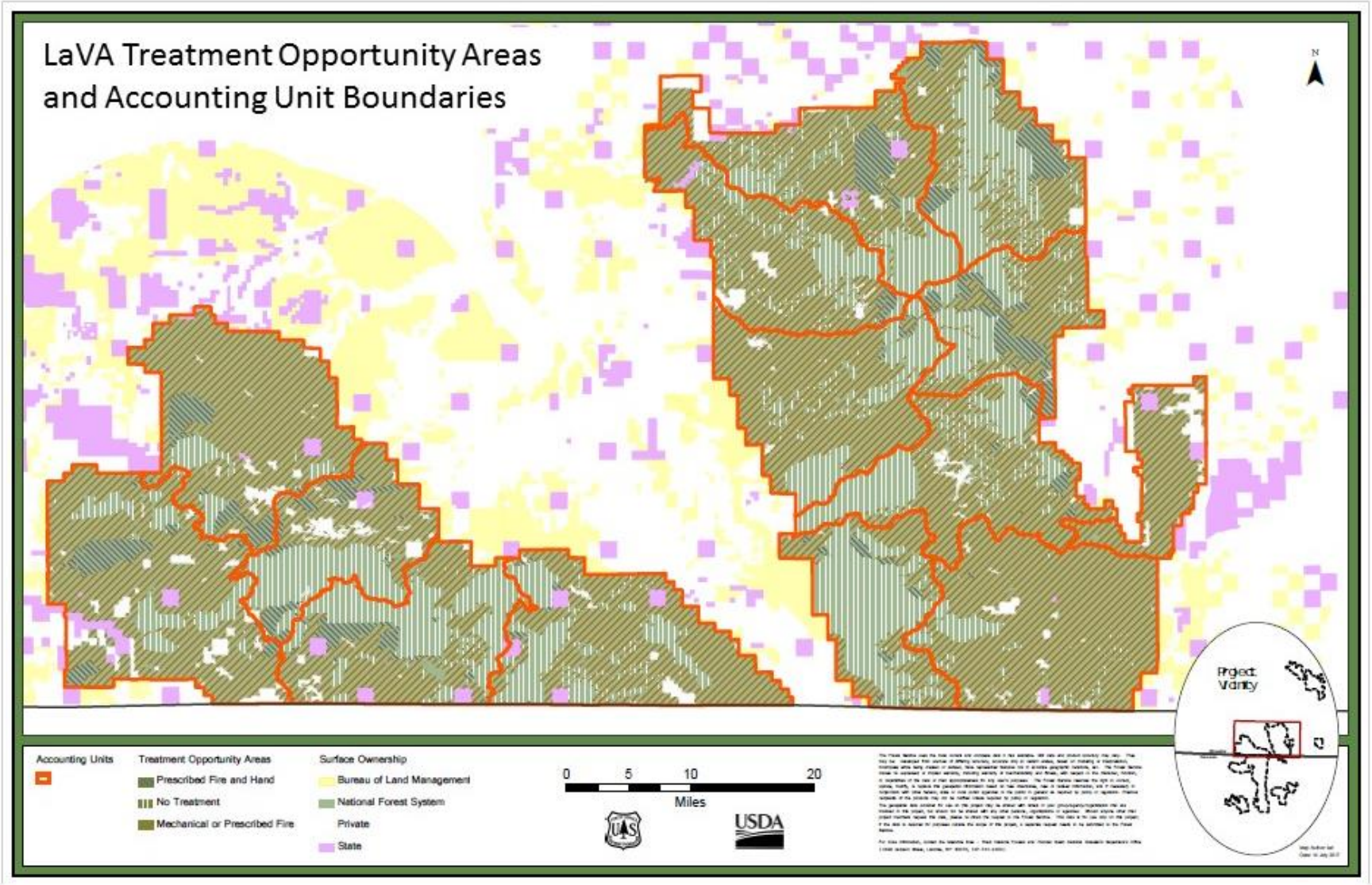
Map and Figure Packet

Map 1 is the Vicinity Map embedded on page 3 of this document.
Map 2 is the Insect and Disease Designation Map.
Map 3 is the Treatment Opportunity Area Map.
Map 4 is the map of Management Areas, Inventoried Roadless Areas, and the Accounting Unit boundaries.
Map 5 is the Overview Map of the Roadless Review Submission Packet approved by the Rocky Mountain Regional Office of the Forest Service.
Figure 9 is an example of how the Treatment Opportunity Areas and Accounting Units support site-specific analysis for Condition-based NEPA.
Table 5 depicts Treatment Opportunity Area Acres in Inventoried Roadless Areas

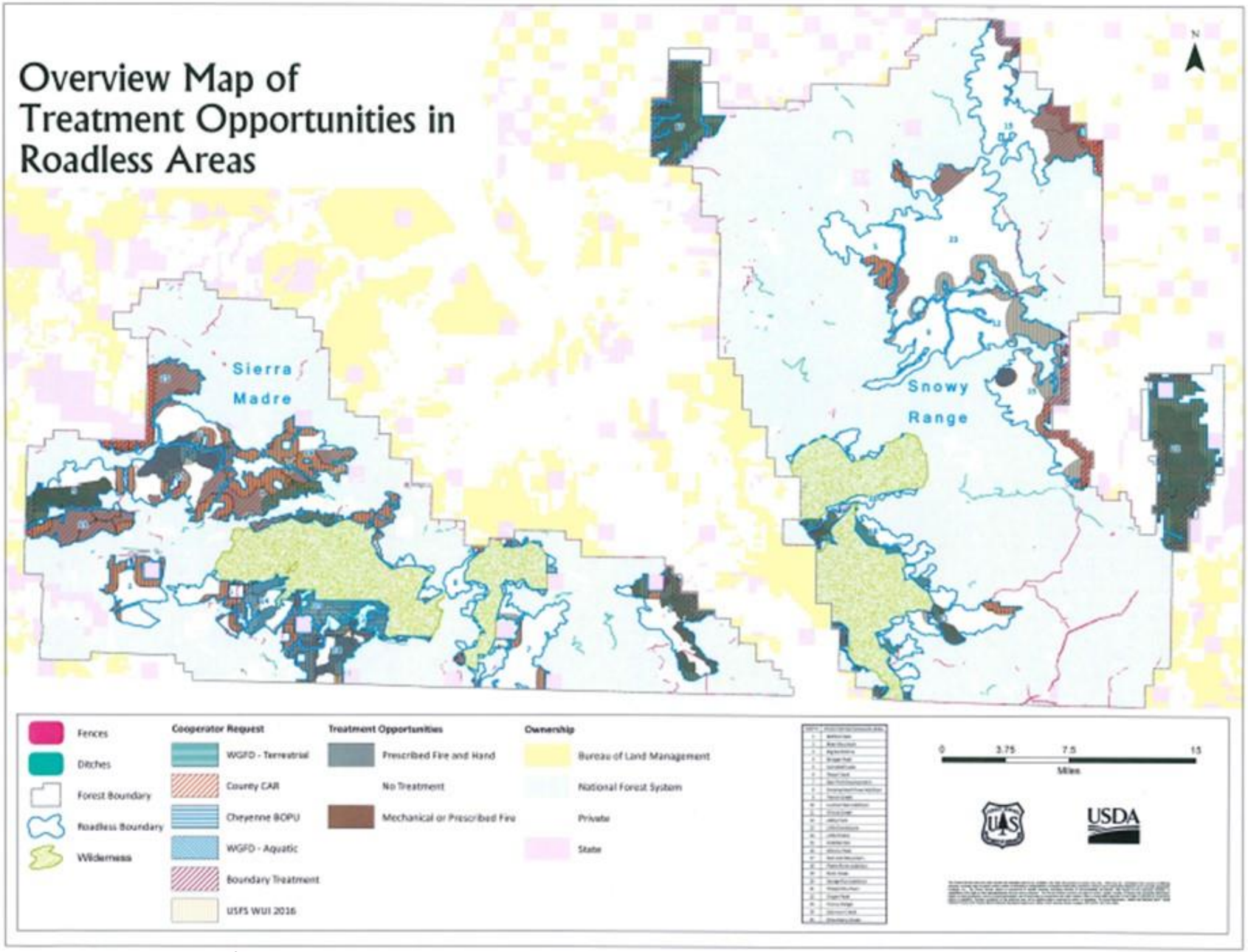
High resolution images of these maps are available on the project website at **www.fs.usda.gov/project/?project=51255.**



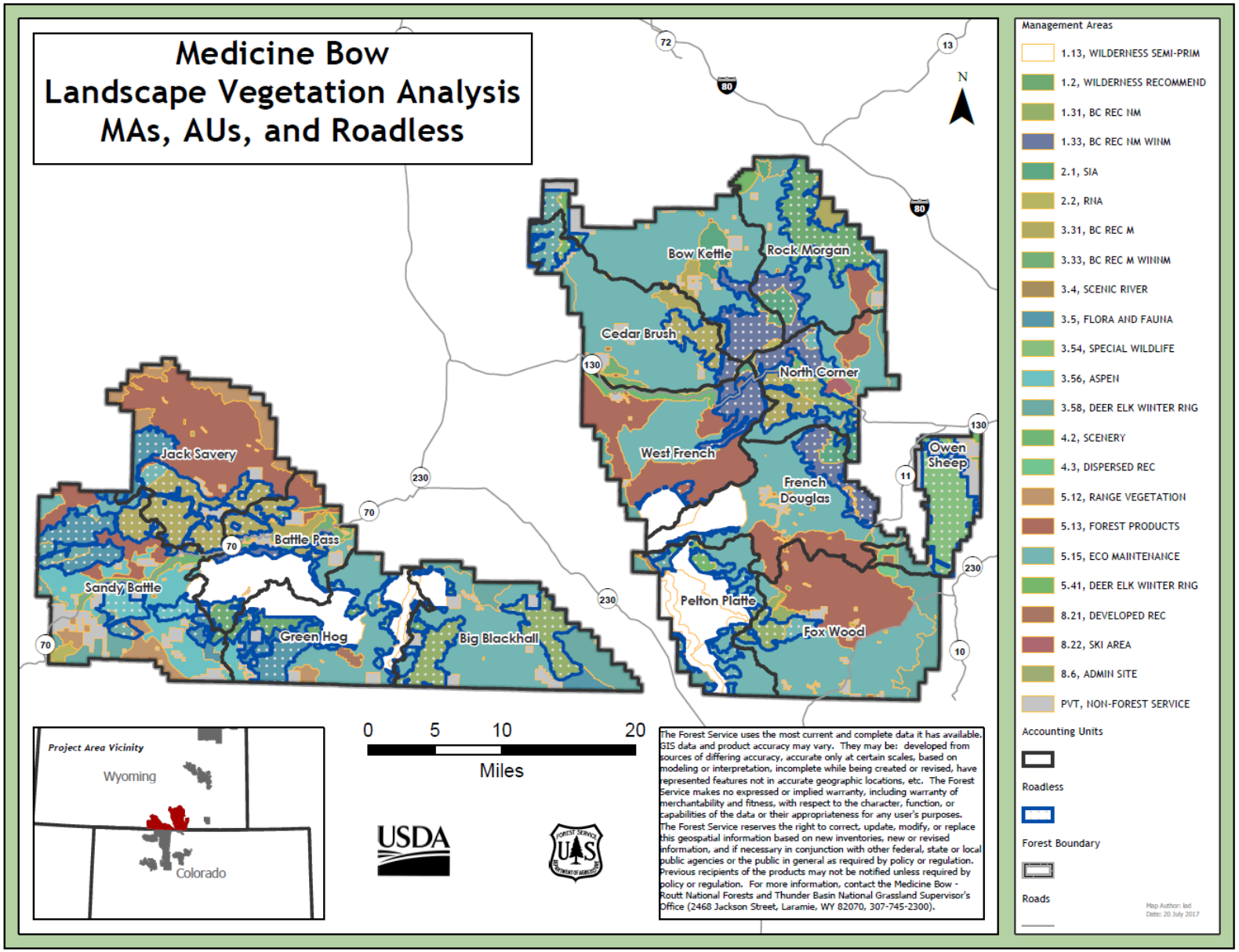
Map 2: Designation of Insect and Disease Areas under HFRA Section 602.



Map 3: Treatment Opportunity Areas and Accounting Units in the LaVA Project Area



Map 4: Features of the Landscape Vegetation Analysis project area. Management Areas and Inventoried Roadless Areas provide management direction for the project. Accounting Units will used to bring site-specificity in the DEIS.



Map 5: Overview of Inventoried Roadless Area components of Treatment Opportunity Areas.

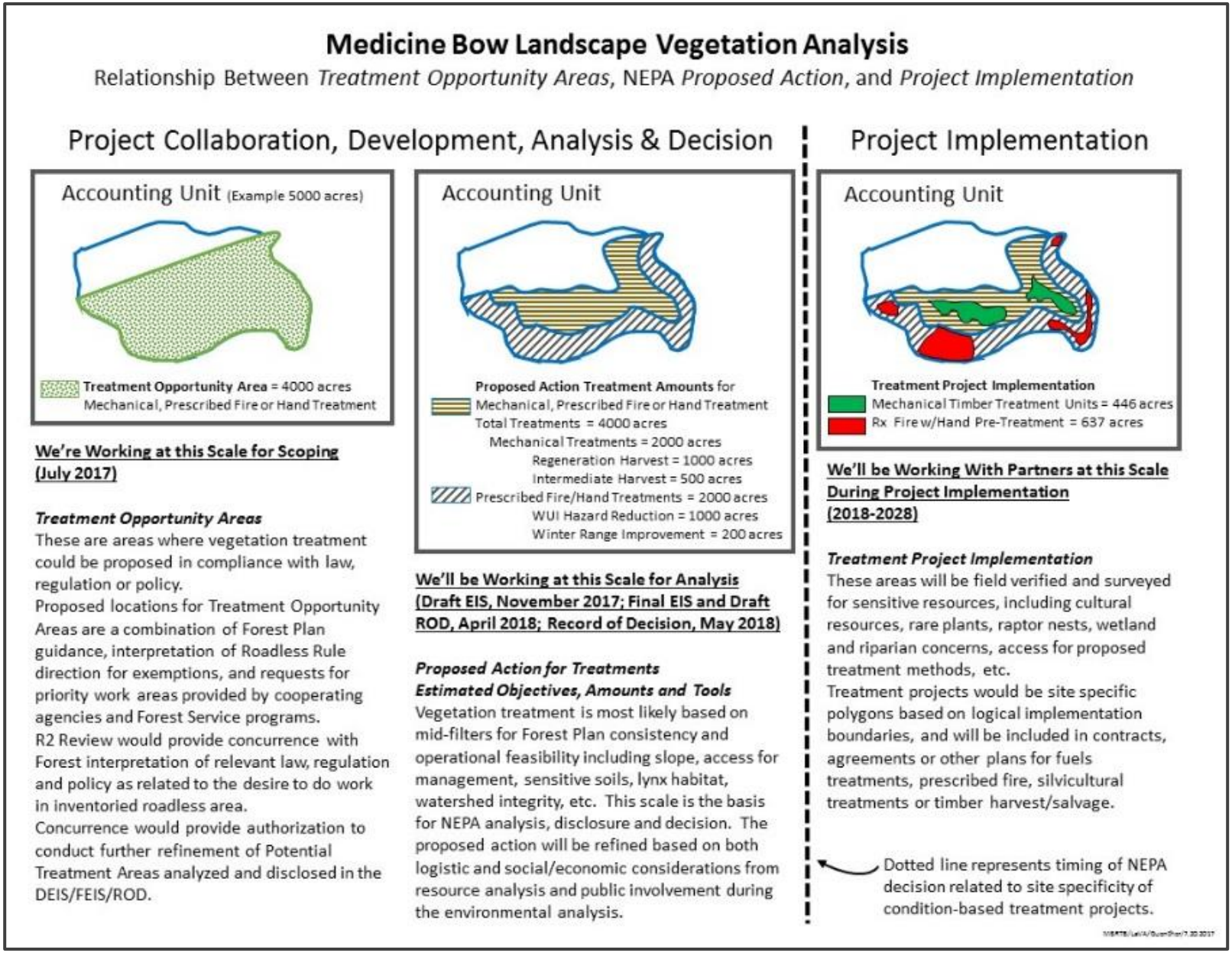


Figure 9: Increasing site specificity during LaVA planning, analysis, decision, and implementation.

Inventoried Roadless Area Information

Table 5: Treatment Opportunity Area Acres in Inventoried Roadless Areas

Total Roadless (Acres)	No Treatment (Acres)	Mechanical TOA (Acres)	Prescribed Fire / Hand Treatment TOA (Acres)	Ditch / Fence (Acres)	Total (Acres / %)
230,239	105,968	79,997	42,559	376 / 1,355	124,287 54%